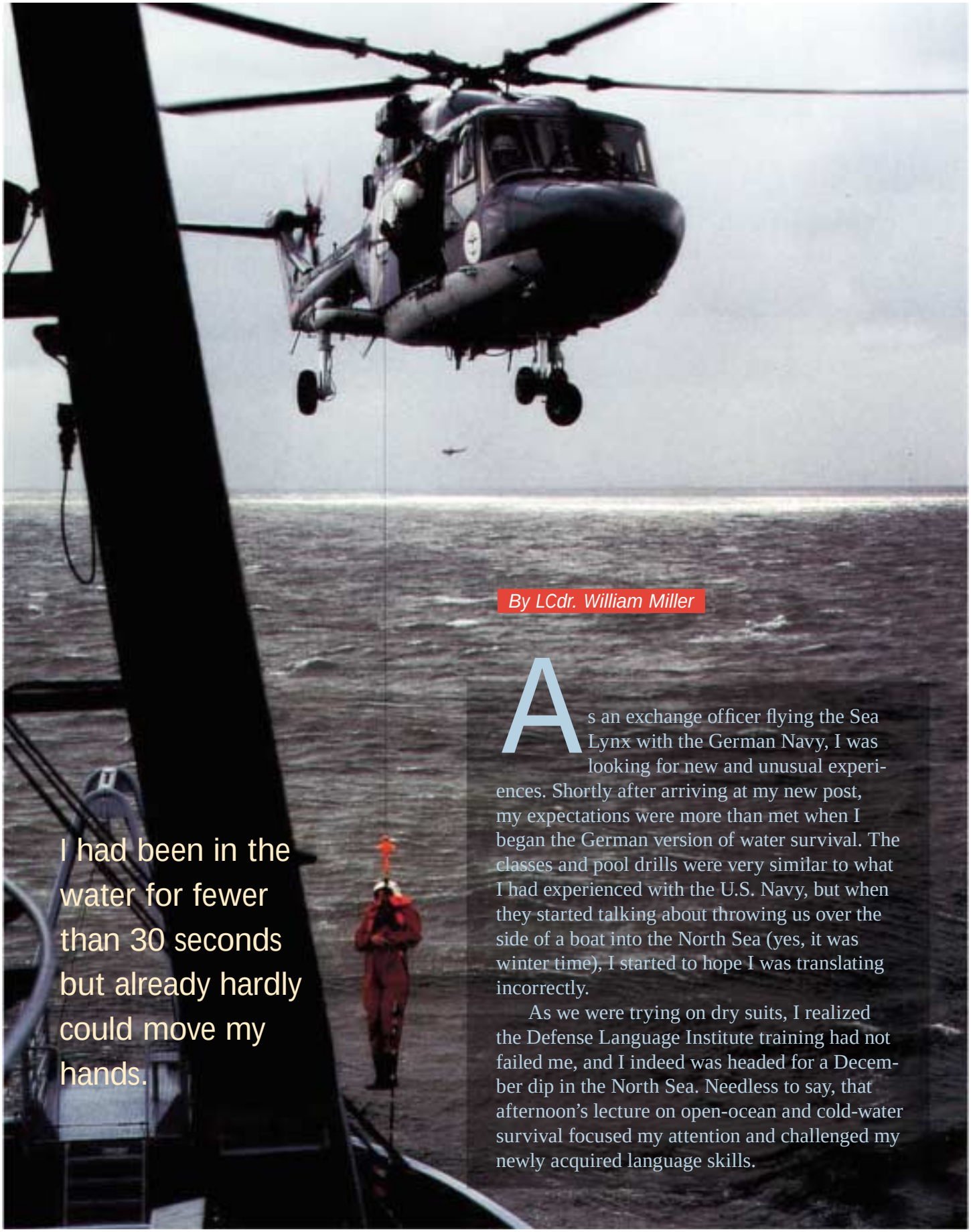

By LCdr. William Miller

As an exchange officer flying the Sea Lynx with the German Navy, I was looking for new and unusual experiences. Shortly after arriving at my new post, my expectations were more than met when I began the German version of water survival. The classes and pool drills were very similar to what I had experienced with the U.S. Navy, but when they started talking about throwing us over the side of a boat into the North Sea (yes, it was winter time), I started to hope I was translating incorrectly.

As we were trying on dry suits, I realized the Defense Language Institute training had not failed me, and I indeed was headed for a December dip in the North Sea. Needless to say, that afternoon's lecture on open-ocean and cold-water survival focused my attention and challenged my newly acquired language skills.

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A Cool, New Experience

Too early the next morning, I walked through the snow and boarded a bus, which took us to the ship. Once on board, our class headed for the North Sea. As the sun rose and I ventured onto the fantail, I thought they probably would cancel the training because there was not only snow on the deck but also several dark and threatening clouds in our general direction of travel. When the ship stopped and we were told to grab our gear, I knew I was in for an exhilarating experience.

After a short review of my ditching procedures and quicker than you could say, "Noch ein Bier," I was in the water. The initial cold shock hit me hard; I was surprised by my shortness of breath. At first, I just floated in the water, thought about my predicament, and wondered how it would feel if I really had just ditched and was alone on the ocean. After my five seconds of philosophizing, the next thing I noticed was my rapid loss of manual dexterity. I deployed my raft and slid into it. I had been in the water for fewer than 30 seconds but already hardly could move my hands.

After trying to get some of the water out of my raft, my hands were just too cold to continue, and I had to stop bailing and try to warm them. My wet flight gloves only made the situation worse and blowing into my hands did not do enough. The one thing that allowed me to thaw out my hands was an inflatable set of mittens. Without these mittens, I would not have been able to even open the zipper on my survival vest, let alone try to work a flare or other signaling device. With my hands warmed by the inflatable gloves, I was able to regain dexterity and continued to deploy my sea anchor. I then donned an insulated hood, inflated the bottom and wind guards of my single-man raft, started to remove some of the water from the raft, and prepared my signaling devices. After completing these actions, I was able to think about my situation and again tried to imagine what it might be like under more stressful circumstances.

While I was floating and waiting for the rescue helicopter to pick me up, it started to snow. But with all the proper equipment, I was surprisingly comfortable. This let me think more clearly and make better decisions. The rescue helicopter eventually hoisted me up and quicker than you could say, "Jaegermeister," the crew gave me a shot of whiskey. I then was hoisted down to the ship and started to think about this impressive training exercise.

One of the first things I realized was how important survival equipment is in an open-

ocean or cold-water-survival situation. The most important piece of gear is a dry suit. Before my North Sea experience, I actively would try to find a weather guesser who would report a combination of air and water temperature that would allow me to avoid wearing the long underwear or, worse yet, the dry suit. Now, if I even am close to the established OPNAV 3710 limits, I wear the dry suit. Without it you only have minutes before being incapacitated by the cold.

The dry suit only works as intended when it is worn with the long underwear and thermal liner.

The German Navy had an unfortunate, yet poignant, example of this when a Tornado crew ejected over the North Sea. The RIO had his anti-exposure suit with all of the undergarments and survived. The pilot, who wore only the outer dry suit and not the required long underwear and liner, died of hypothermia. If the water temperature versus air temperature is even close, give yourself at least a decent chance of survival by wearing your survival equipment.

For passenger aircraft, when the aircrew are wearing dry suits, make sure your passengers are wearing the quick-donning assembly or the passenger-assembly anti-exposure suit.

I found the inflatable mittens and the hood to be indispensable. This experience convinced me that the mittens are a key part of cold-water-survival gear. Your hands are critical if you want to survive in cold water. Not only are your hands necessary for the use of signaling devices, but it also is difficult to concentrate on other tasks when they are stinging from the biting cold water. Make sure your dry suit has the anti-exposure mittens and hood assembly stowed in one of the leg pockets.

Getting out of the water and into a raft is the next critical element in cold-water survival. The single-man raft I used in the North Sea was the best design I have seen. It looked the same as the ones we use in water survival with the U.S. Navy, but you can inflate the bottom of the raft as well as the windshields for additional insulation from the cold. Protection from the wind is very important, especially when you are wet. I recommend this improved type of raft be acquired and used in the U.S. Navy.

For aircrew who do not have rafts physically attached for egress, make sure your crew knows how important these rafts are in case of a cold-water-ditching scenario. Think about and brief what could be done to make sure the rafts get out of the aircraft. Do not allow rafts to get packed away under cargo or in areas that are not quickly accessible. Also, the rafts will get filled with water when a survivor slides aboard. It is important to stay as dry as possible, so work to get the water out of the raft. The sides of the wind shield can be used to empty water. By submerging the edges of the wind shield into the water in the raft and then pulling up and out, the water will be forced to roll down the outside of the raft.

Here are other helpful tips to remember: Constantly work to collect fresh water. Good sources of water include rain or, in my case, snow, bluish sea ice, and any moisture that might form on your raft or equipment. Store as much water as you possibly can because you never know when you will have the chance to renew your supply. Do not drink urine; not only is it really gross, but it will increase your overall rate of dehydration. Do not eat unless you have water available to aid digestion because you will only dehydrate yourself more. While waiting for rescue and to assist in warming yourself, attempt to stretch and do small, controlled callisthenic movements, such as waving your arms or twisting your torso. Be careful not to sweat because you want to control your expenditure of fluids.

My chilling dip in the North Sea was not exactly one of the experiences I expected on my exchange tour, but I am glad to have done it. It taught me some lessons, which were forever "frozen" into my mind. As we rode the ship back to port, someone in our class told me we had been given this great training opportunity and would be fortunate to repeat it yearly. The Germans go through sea survival every year. And, since I started in early winter, I probably would continue to attend each winter. With that frigid thought, and before you could say, "Hefeweissen," I quickly ordered a pilsner from the ship's bar and was able to find some consolation in my prospect for new experiences.

LCdr. Miller flies with HS-3